

- 5.1.3 CONTRACT DOCUMENT: - Means any writing that forms part of contract such as tender document, drawing and specification etc. (1)
- 5.2 5.2.1 WORKING DRAWINGS: - Is used to outline the shape at the structure of how it should look like at the end of construction. (1)
- 5.2.2 SPECIFICATION: - Explain quality and fixing of different materials to the structure (1)
- 5.2.3 BILLS OF QUANTITIES: - The contractor consult the bills of quantities to find material quantities to be use in different activities (1)
- 5.2.4 FORM OF TENDER : - Send by the architect to different contractors to fill in the total sum of tendering (1)
- 5.2.5 PRINCIPAL BUILDING AGREEMENT : - (Schedule of conditions); - It is where the contractor and the employer record all terms agreed upon in terms of contract and to consult it at the later stage when there is a dispute or misunderstanding. (1)
- 5.2.6 INTERIM PAYMENT CERTIFICATE: - It is issued by the architect to inform the owner about the sum at money due to the contractor as monthly payment during the construction of the project. (1)
- 5.2.7 FINAL ACCOUNT: - At the end of construction period defect liability period the contractor send a final statement to the architect indicating final account that is due to the contractor. (1)

QUESTION 6

FIVE ESSENTIAL REQUIREMENTS (SKILLS AND CHARACTERISTICS WHICH HE SHOULD HAVE)

- 6.1 - He should have technicians diploma in construction management.
- He should be a man of long experience and wide practical knowledge
- He should be a boss to gangers and their men.
- He should have a basic principle on leveling and surveying using surveyor's machines
- He also should have clerical ability sufficient to shuffle up time sheet and get them into required order. (5)

QUESTION 3

- 3.1 Trade foreman (1)
- 3.2 Storekeeper
- 3.3 Artisan
- 3.4 Surveyor
- 3.5 Nominated Sub-contractor
- 3.6 General foreman
- 3.7 Building control officer
- 3.8 Building surveyor
- 3.9 Clerk of works
- 3.10 Resident engineer

QUESTION 4

PLANT CATEGORIES

EARTH CATEGORIES

- (a) Excavation
- (b) Loading
- (c) Transportation
- (d) Leveling
- (e) Compacting

PLANT

- (1) Trencher (2) Backer
- (1) Face shovel (2) Hydraulic backhoe
- (1) Tipping lorry (2) Trucker
- (1) Grader (2) Dozer
- (1) Rollers (2) Vibrator

QUESTION 5


- 5.1 5.1.1 CONTRACT:- Means these general conditions of contract and special conditions. Specifications, drawings, tender are written records of matters agreed after the submissions of the contractor's tender. Letter of acceptance and agreement executed in terms of clause 5 together with other documents which the parties have agree in writing shall form part of the contract and such amendments or additions to the contract as way be agreed in writing between the parties.
- 5.1.2 DOCUMENT: - Means any writing that forms part of contract such as tender documents etc.

QUESTION 1

- 1.1 Agenda
- 1.2 Minute
- 1.3 Quorum
- 1.4 Chairperson
- 1.5 Secretary
- 1.6 Motion
- 1.7 Attendance register
- 1.8 Constitution
- 1.9 Executive
- 1.10 Seconder (10)

QUESTION 2

- 2.1 Buying department
- 2.2 delivery invoices
- 2.3 Storekeeper/ Store clerk
- 2.4 Fine and theft
- 2.5 Care
- 2.6 Works
- 2.7 Moisture
- 2.8 Are toxic
- 2.9 Fragile/ Easily damage
- 2.10 Damage/ Theft (10)



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REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

BUILDING ADMINISTRATION N5

22 MARCH 2012

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10.3 Bulk and shrinkage :- Excavation of material causes it to loosen, and thus its excavated volume will be greater than its in-situ volume. However, when filled and compacted, it may occupy a less volume than when originally in-situ (i.e.) ordinary earth is less by about 10% after filling, whilst rock bulk by some 20% to 30%. To allow for this, a correction factor is generally applied to the cut or fill volume.

(2)
[10]

TOTAL: 100

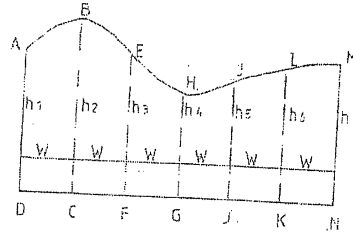
9.2 **Planning**:- Can be defined as the devising of a scheme for doing, making, or arranging a project or programme before the work being planned is under way. (2)

9.3 (a) To show the quickest and cheapest method of carrying out the work consistent with the available resources. (2)

(b) To provide information on material quantities and essential delivery dates, the quantity and capacity of the plant required and the periods it will be on site.

QUESTION 10

10.1



SIMPSON'S RULE :- $A=W [(h1+h7)+ 4(h2+h4+h6)+(h2+h5)]$. (3)

10.2 10.2.1 **Haul**:- refers to the volume of material multiplied by the distance moved, expressed in 'stations metres' (1)

10.2.2 **Station metre (stn m)**:- Is 1m² of material moved 100mm, thus 20m³ moved 1500m is a haul of $20 \times 1500/100=300$ stn m. (1)

10.2.3 Contractor may offer to haul material a distance of say 150m at 50p per m³ and that is called free-haul distance, but thereafter for any distance hauled beyond 150m the contractor may require an extra 5p per m³ moved per 100m and that is over-haul distance (1)

10.2.4 **Waste**:- Is the material excavated from cut but not used for embankment fills (1)

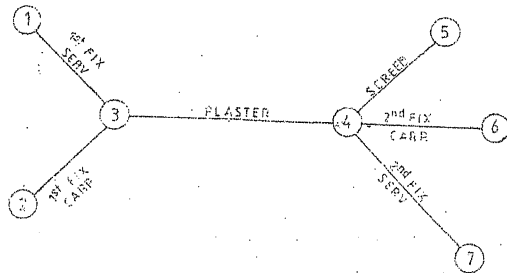
10.2.5 **Borrow**:- Is the material needed for the embankments, secured not from roadway excavation but from elsewhere. It is said to be obtained from a 'borrow pit'. (1)

8.1.3 **Float**:- Is refer to those activities which are not on the critical path. (1)

8.1.4 **Critical path**:- Is the longest route through the network that any delay in completing the activities on this path will extend the overall project time. (1)

8.1.5 **Resource smoothing**:- This is when you want to provide a more uniform use of resource throughout the contract period and you delay the start of some other non-critical activities. (1)

8.2



QUESTION 9

9.1 **The master or overall programme** :- Sometimes called long-term programming covers the full contract period and includes the complete works in broad overall terms. Time is usually plotted in months and weeks, with dates and contract week numbers entered holiday periods should also be shown, since allowance must be made for these reduced or lost production spells.

Phase or section programme - Sometimes called medium term programming should now be prepared for every major items that requires more detailed treatment e.g. such separate building or construction phase of significant size. Each line of master programme, if required, is magnified and considered in closer detail the form of programme chart may be a before, indicating weeks with dates and serial numbers, but covering only part of the contract period.

Short-term programming :- It requires more magnification of items. In this type of programming master and section programme are further enlarge to week and days programming. This type of programming reach much closer to individual term than section programme. (6)

6.2 **FIVE TYPICAL TASKS WHICH HE HAS TO FULFIL ON A BUILDING SITE**

- He should see to it that safety precautions adhere too by workers on site.
- With his long experience, he should if necessary demonstrate personally how word things should be done.
- He should keep the job going at a right speed and in a right manner.
- He is expected to use both labour and plant productively.
- He spend a lot of his time outside, visiting all part of the work under his control at least twice a day.

(5)
[10]

QUESTION 7

7.1 **Balance line**

7.2 (a) Cut (positive)
(b) Fill (negative)

7.3 **Grade points**

7.4 (a) from left to right
(b) from right to left

7.5 **CD**

7.6 (a) X
(b) Y
(c) Z
(d) C

7.7 (a) L M Y
(b) Y N P
(c) C C

7.8 **Centre of gravity**

7.9 **Centre line**

[10]

QUESTION 8

8.1 8.1.1 **Activity**:- Is normally regarded as the work done by a man or gang of men but it may also be something which takes time to perform. (1)

8.1.2 **Event**:- The circles represents events and distinguished from activities in that they are point in time and do not consume resources whether those be labour, materials or time. (1)